

NEWS RELEASE

For Immediate Release

Sept. 26, 2023

Media Contact: Alana Quinn, 202-334-2415; aquinn@nas.edu

Cultural Programs of the National Academy of Sciences

Art Exhibition Inspired by Fluid Dynamics to Open at NAS

WASHINGTON – Cultural Programs of the National Academy of Sciences announces “Chaosmosis: Assigning Rhythm to the Turbulent,” an art exhibition inspired by fluid dynamics, a discipline that describes the flow of liquids and gases. The exhibition opens on Oct. 2, 2023, at the National Academy of Sciences and will remain on view through Feb. 23, 2024.

This unique exhibition draws from past submissions to the American Physical Society’s Gallery of Fluid Motion, an annual program of the Division of Fluid Dynamics that serves as a visual record of the aesthetic and science of contemporary fluid dynamics. For the first time, a selection of these past submissions has been curated into an educational art exhibition to engage viewers’ senses.

The creators of the 11 works on view, which range from photography and video to sculpture and sound, are scientists and artists. Their work enables us to see the invisible and understand the ever-moving elements surrounding and affecting us. Contributors to the exhibition include artists Rafael Lozano-Hemmer and Roman De Giuli, along with physicists Georgios Matheou, Alessandro Ceci, Philippe Bourrianne, Manouk Abkarian, Howard Stone, Christopher Clifford, Devesh Ranjan, Virgile Thievenaz, Yahya Modarres-Sadeghi, Alvaro Marin, Christophe Almarcha, Bruno Denet, Emmanuel Villiermaux, Arpit Mishra, and Paul Branson.

Magnified frozen water droplets resemble shattered glass in a series of photographs. A video simulation depicts the confined friction occurring within a pipe with flowing liquid. In other works, the fluid motions portrayed are produced by human bodies: a video sheds light on the airflow of an opera singer while singing, and a 3D-printed sculpture reveals the flow of human breath using sound from the first dated recording of human speech. Gases and liquids are in constant motion, advancing in seemingly chaotic ways, yet the works offer a closer look, revealing elegant and poetic patterns amid atmospheric turbulence.

The term *chaosmosis*, coined by the philosopher Félix Guattari in the 1990s, conveys the idea of transforming chaos into complexity. It assigns rhythm to the turbulent, linking breathing with the subjective perception of time, and concluding that respiration is what unites us all.

“Chaosmosis: Assigning Rhythm to the Turbulent” is on exhibit at the National Academy of Sciences, 2101 Constitution Ave., N.W., Washington, D.C. The building is open from 9 a.m. to 5 p.m. on weekdays, and closed weekends and holidays. A photo ID is required. The exhibition is curated by Natalia Almonte and Nicole Economides in coordination with Azar Panah and the American Physical Society, Division of Fluid Dynamics. For more information about our exhibitions, visit www.cpnas.org.

Cultural Programs of the NAS sponsors exhibitions, salons, theatrical readings, and other events that explore relationships among the arts and sciences. The NAS is a private, nonprofit institution that recognizes achievement in science by election to membership, and — with the National Academy of Engineering and the National Academy of Medicine — provides science, technology, and health policy advice to the federal government and other organizations.

About the American Physical Society

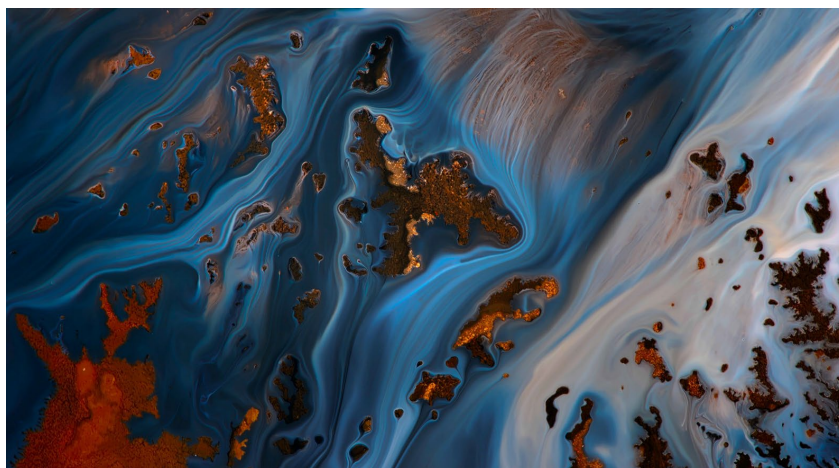
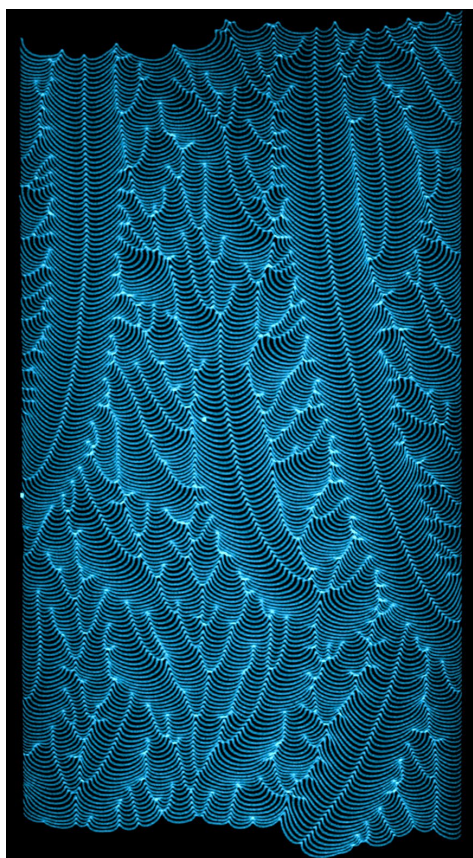
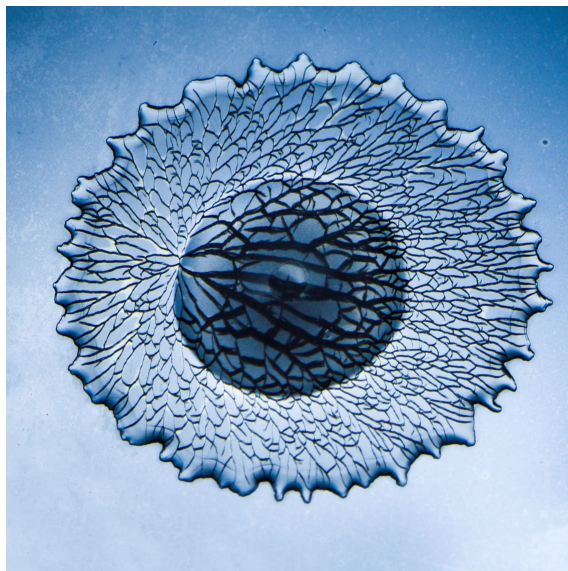
The American Physical Society is a nonprofit membership organization working to advance and diffuse the knowledge of physics through its outstanding research journals, scientific meetings and education, outreach, advocacy, and international (Continues on page 2)

activities. APS represents more than 50,000 members, including physicists in academia, national laboratories, and industry in the United States and throughout the world.

About the Division of Fluid Dynamics

Established in 1947, the American Physical Society's Division of Fluid Dynamics exists for the advancement and diffusion of knowledge of the physics of fluids with special emphasis on the dynamical theories of the liquid, plastic, and gaseous states of matter under all conditions of temperature and pressure.

Press Images



Left to right, top to bottom: Stephen R. Johnston, Jessica B. Imgrund, Dan Fries, Rafael Lozano-Hemmer, Stephan Schulz, Kyle C. Johnson, Johnathan T. Bolton, Christopher J. Clifford, Brian S. Thurow, Enrico Fonda, Katepalli R. Sreenivasan, Devesh Ranjan, *Volute 1: Au Clair De La Lune*, 2016, 3D-printed filament, sound, 26 x 7 x 8 inches; Virgile Thievenaz, Christophe Josserand, Thomas Seon, *Crack Patterns in Freezing Drops*, 2016, digital print on brushed aluminum, 24 x 24 inches; Christophe Almarcha, Joel Quinard, Bruno Denet, Jean-Marie Laugier, Emmanuel Villiermaux, *Experimental Two-Dimensional Cellular Flames*, 2014, laser print on fabric, 84 x 46 inches; Roman De Giuli, *Sense of Scale*, 2022, video still.

For print-quality images, contact Alana Quinn, 202-334-2415,

aquinn@nas.edu

###